

Operation

Logarithm (base e)

$$r = \ln_e b$$

$$\ln_e \frac{b}{3}$$

Use

a) Calling Linkage

L : 100 8 L+2 3ff 35f
 L + 1: — 5 — — LNE:1
 L + 2: ~~0 1e1 1b1 1r1 B~~

b) Adaptation Link Word

L + 2: ~~022~~ ~~01f~~ 1w1 31 B

c) Storage

j = 34 words
 k = 31 orders
3 constants
6 opstos: 35a to 35f

~~e must be
 fixed point 0.1
 (can use 3fc, 3ec, 3fd)~~

Requirements and Performance

a) Method of operation Floating point, series expansion

b) Additional routines required None

c) Range and form of variable $0 \leq b \leq 2^{255}$
 Routines halts (3e8) if $b \leq 0$

d) Accuracy

e) Performance time

{ 8.4 sec max
 5.0 sec average }

New
 working
 version
 11-28-59
 CWMc